

STUDENT NAME

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**LAB #2**

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## BEFORE WE START

The main application of this course is 3D Studio Max 2015.

Before we start:

- I. 3D Studio Max has been installed.
- II. Double-click on its icon.
- III. Make sure to watch the videos uploaded to the course shell, before you start the activities.



## ACTIVITY 1

### GITHUB

This may look familiar to some of you but there is more to it because we are working with large files. Please make sure you don't just do what you did before! Read instructions carefully and follow them.

**Create a private repository (repo for short) for the course.**

1. If you do not have a github account, please create one first:
  - [get your github id](#)
  - You will use the same github account throughout this course and beyond. Pick a userid that you can be ok with professionally.
2. Once you have your github id, go to the link provided in your lab 0 announcement on myseneca to create your private repository for this course. **FOR YOUR TEAM NAME USE YOUR REAL NAME. This is needed to find you in the grading roster.**
3. Go to <https://github.com/seneca-gam536-dps936-w20>
  - You will now see two repos, one for the course (seneca-gam536-dps936-w20) and one named labs-**your name**. The repo named after you, is your private repo. This repository can not be seen by other students. It is what you will use for all your labs

NOTE: We will only look at work in the repos created through the method described above. If you create your own repository under your account, we will not grade that work. If you create public repository to host your work that will be a violation of academic policy (ie cheating) so don't do that.

- Check that you did this properly.

## References:

The following videos may be useful for you to help you connect to matrix, use ftp, use ssh, compile a program, etc.:

[https://www.youtube.com/playlist?list=PLlwwp9w\\_br-43LhR\\_YNsb2ia9-t99fdzF](https://www.youtube.com/playlist?list=PLlwwp9w_br-43LhR_YNsb2ia9-t99fdzF)

## ACTIVITY 2

### Create the Dough of a Donut (continue from Week 1 tutorial)

These activities are purposed to familiarize the students with the basics of 3D Studio Max.

### BEFORE YOU BEGIN

- Use your personal computer and open the Blackboard on the course page.
- Open the Week 1 folder.
- Click on the Lab 1 link.
- Download the **Lab1.docx** file from Blackboard and follow the instructions.

### Complete the following tasks:

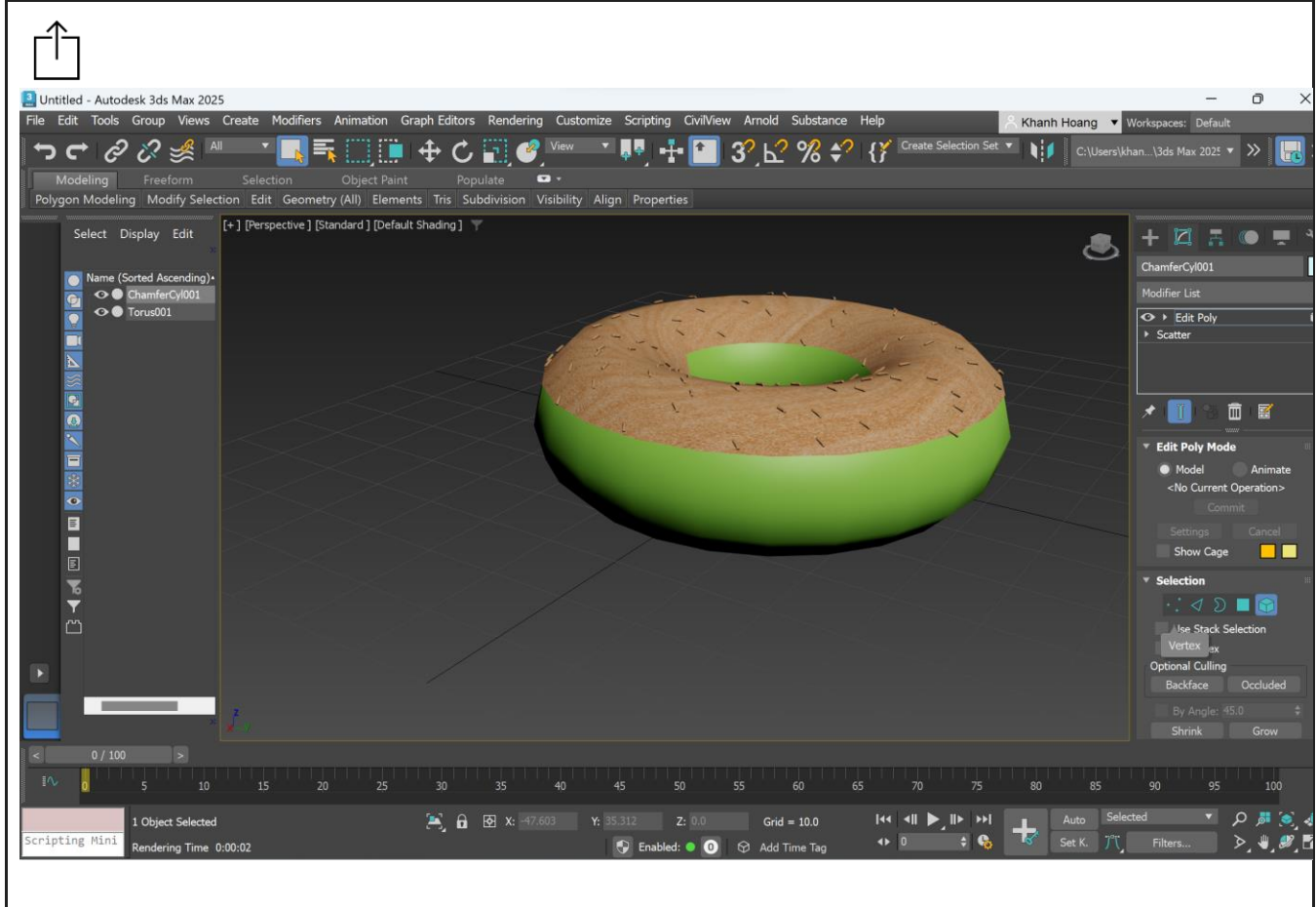
1. Create a Torus and set it dimension, using the units, to match the ones of a real donut.
2. Convert the object to an Editable Poly.
3. Select the Polygon option under the Modifiers.
4. Select the top of the donut and create the Icing object, but pressing Ctl+Shift and moving the selected polygons up.
5. Place the Icing on top of the Dough.

Advanced:

1. Add Sprinkles on the Icing object.
2. Apply Materials.

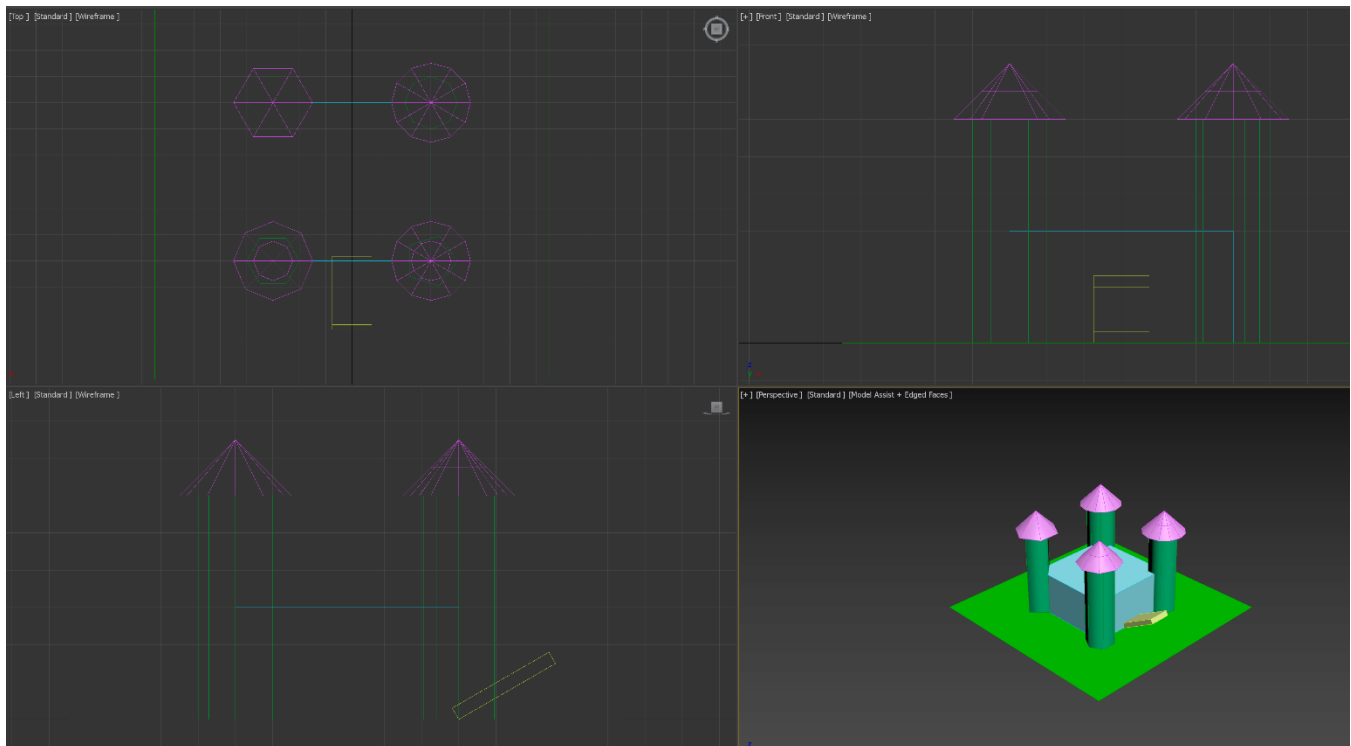
## TASK 2:

Take a screenshot of your Viewports, displaying the output and paste it below.



## ACTIVITY 3

### Create a Castle



Follow the steps below:

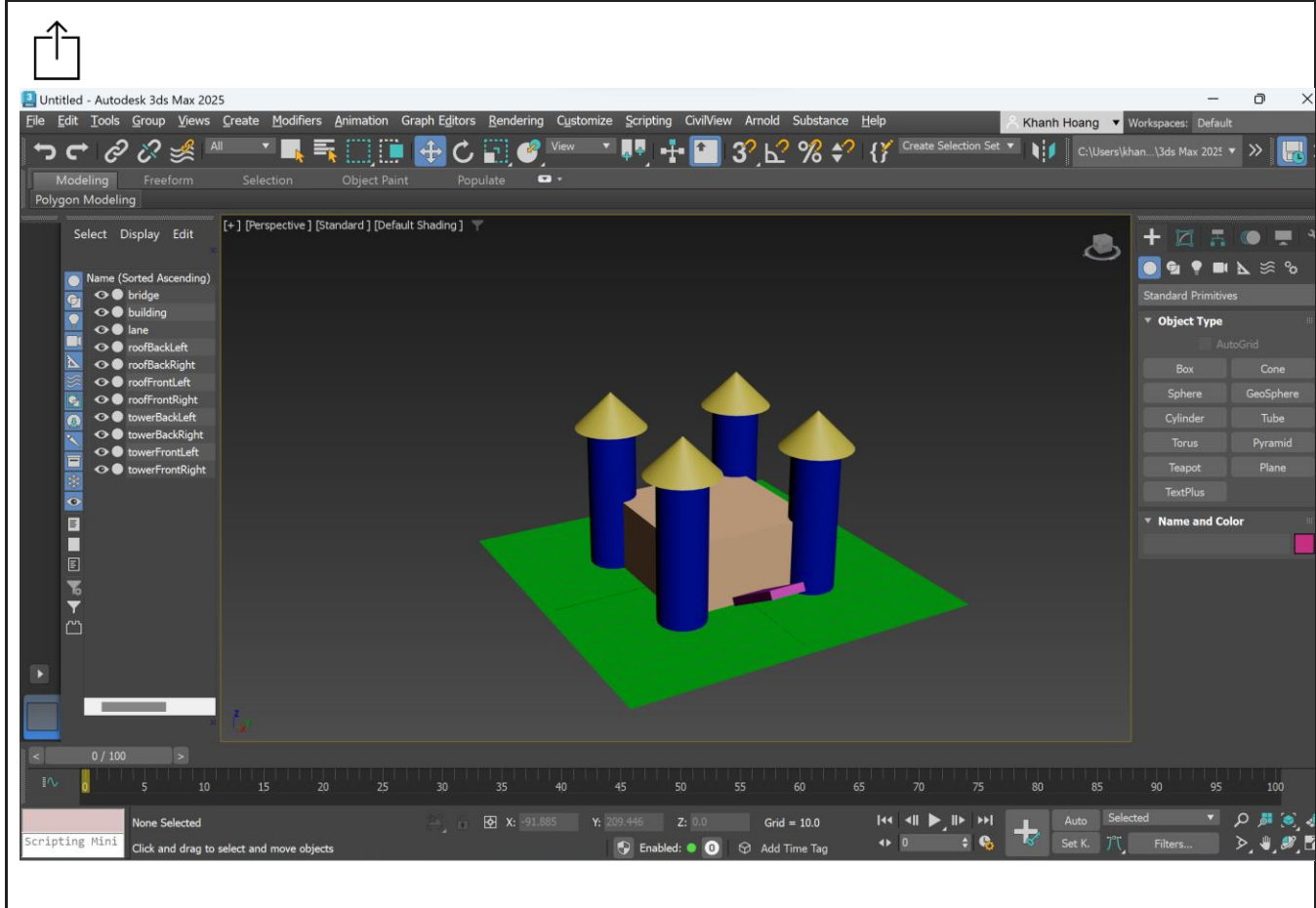
The castle is centred at the origin.

1. The main building is a box, 60 units in length and width, 30 units tall, name this object **building**.
2. The tower at each corner is 60 units tall, 10 units radius. Towers are positioned so that they are centred at the corner of the main building. Name each tower as towerPosition, where Position is two words. The first is either Front or Back, while the second is either Left or Right. Thus, the front right tower should be named "towerFrontRight".
3. The roof of each tower is 15 units tall, 15 units radius. Name each roof as roofPosition. The first is either Front or Back, while the second is either Left or Right.
4. The drawbridge is a box, 30 units length, 15 units width, 3.5 units tall, rotated at 30 degrees from the horizon. Name this object "bridge".
5. The land is a plane that is 150 units by 150units, centred at origin. Name this plane "land".

The other parameters such as number of sides and number of segments can be gleaned by looking at the image in the orthographic viewports.

## TASK 2:

Take a screenshot of your Viewports, displaying the output and paste it below.



## ACTIVITY 4

### SUBOBJECTS AND MODIFIERS

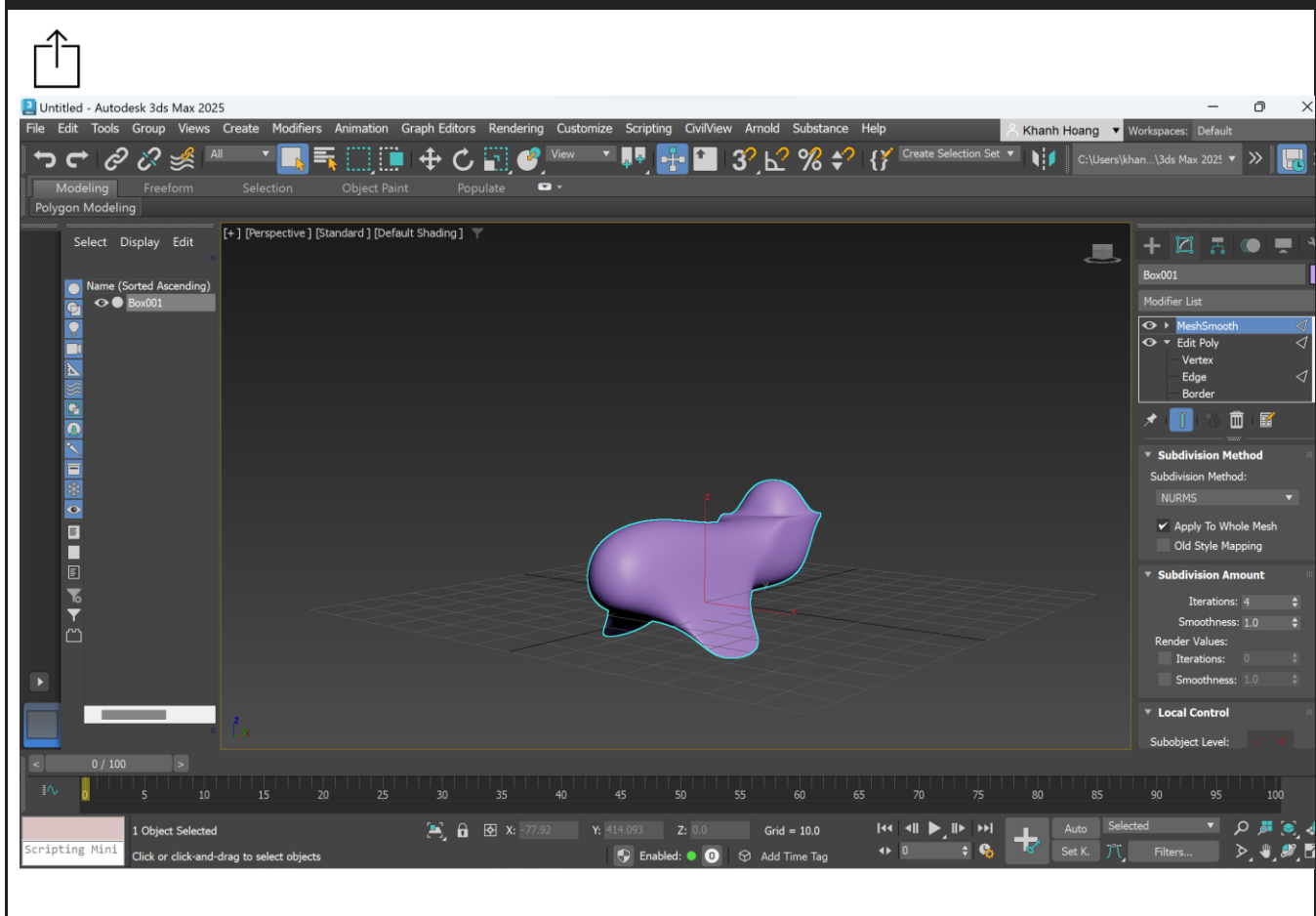
In this part of the lab, we will create a simple model of a plane. Note that the steps do not necessarily have to be done in exactly this order.

1. Start by creating a stick where the L:W:H ratios are 4:1:1 (thus if length was 80 units, then width and height would be 20 units each). The stick should have 4 length segments.
2. Select and lift the edge separating the front most square and the second square on the top.

3. Connect the edges that form the second square from the front on both sides and extrude the bottom rectangle of that square.
4. Connect the edges that form the last square. Do this on both sides. move these edges up so that the top rectangle is smaller than the bottom one. Extrude these top rectangles.
5. Select the rear edge of the rear top square and its opposite edge on the top face and connect them with 2 edges (thus dividing it into 3 rectangles. Extrude the middle rectangle.
6. Using the scale and move operators adjust the extruded faces so that the wings and fins look about right for a plane (it will still look chunky).
7. Apply a mesh smooth modifier to the object, use classic subdivision 3 or 4 iterations.

### TASK 3:

Take a screenshot of your Viewport, displaying the output and paste it below.



### FINAL STEPS:

1. Save this document as a PDF.
2. Upload the PDF to the Lab#1 submission link.
3. Upload your models to your Github repo and attach the link here:

#### GITHUB LINK



<https://github.com/khanhhvm/DPS936/tree/d58f87447fab249585eba45cfa82725413ff1044/lab1>

### Useful notes and references

- If the shading (colours) look wrong, make sure you are in model assist rendering mode.
- Right clicking on the spinners in the status bars sets the value to 0. Thus, you can use it to easily centre any object by selecting it, switching to the move operator and right clicking on spinners.
- You can clone any object by holding the shift key and dragging the object away with the move operator (create a copy).
- Once an object is created, you will often not be able to alter it in the creation tab but instead must go to the modify tab to change the object.

Hot keys (max has a ton of hotkeys... here are the ones that might be useful to you for this lab:

- w - move manipulator.
- e - rotate manipulator.
- r - scale manipulator (reasoning behind this I think is because the buttons are ordered in the main tool bar from left to right as move, rotate, scale... so w,e,r are beside each other on qwerty key board).
- alt-w - toggles between maximizing active viewport and switching back to multiviewport view.
- f3 - toggles shaded and wired only view.
- f4 - toggles show edges.



Once you have submitted the assignment, your instructor will be able to view your submission and will grade the submission in the near future.